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(71) Applicant (for all designated States except US): JOHN INNES
CENTRE INNOVATIONS LIMITED [GB/GB]; Norwich
Research Park, Colney Lane, Norwich NR4 7UH (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HARBERD, Nicholas,
Paul [GB/GB]; John Innes Centre, Dept. of Molecular
Genetics, Colney Lane, Norwich NR4 7UJ (GB). PENG,
Jinrong [CN/GB]; John Innes Centre, Dept. of Molecular
Genetics, Norwich Research Park, Colney Lane, Nor-
wich NR4 7UJ (GB). CAROL, Pierre [FR/FR]; Université
Joseph Fourier, Génétique Moléculaire Végétale, B53X, F-
38041 Grenoble Cédex (FR). RICHARDS, Donald, Ernest
[GB/GB]; John Innes Centre, Dept. of Molecular Genetics,
Norwich Research Park, Colney Lane, Norwich NR4 7UJ
(GB).

(74) Agents: WALTON, Sean, M. et al.; Mewburn Ellis, York
House, 23 Kingsway, London WC2B 6HP (GB).

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(54) Title: NUCLEIC ACID ENCODING GAI GENE OF ARABIDOPSIS THALIANA

(57) Abstract

The *GAI* gene of *Arabidopsis thaliana* has been cloned, along with mutant and homologue gene sequences. Expression of such genes in plants affects characteristics of the plants including growth. *GAI* expression inhibits growth of plants, which inhibition is antagonised by gibberellin (GA). Expression of *gai* mutants confers a dwarf phenotype which is GA-insensitive. Manipulation of expression of *GAI* and *gai* genes in plants results in tall or dwarfed plants. Dwarf plants are useful in particular for reduction in crop losses resulting from lodging.

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